
Purpose of the Study. To determine if physician-administered physical examination and screening questionnaire accurately detects exercise-induced bronchoconstriction (EIB) in adolescent athletes. Study Population. Two hundred fifty-six adolescents participating in organized sports from 3 suburban high schools. Methods. The number screened positive from the examination and questionnaire was compared with EIB diagnosed by the “gold standard” of a 7-minute exercise challenge followed by serial spirometry. Results. EIB was diagnosed in 9.4% of the athletes. However, 39.5% of the group had a diagnosis suggestive of EIB by screening tests, verified by challenge in only 12.9%. Among the remainder with a negative screen, 7.8% actually had EIB on challenge. Adolescent athletes who screened negative for a history of asthma, EIB, and allergic rhinitis accounted for 45.8% of the subjects diagnosed with EIB. Conclusions. EIB occurs frequently in adolescent athletes and screening by physical examination and medical history does not accurately detect it.

Reviewer’s Comments. The diagnosis of EIB is important because the disorder can be severe and previous studies show that of children who died suddenly during sports participation, 32 of 108 died of severe asthma identified clinically at the time of death or on autopsy. An accompanying editorial by Bokulic points out that it is impractical to perform exercise testing with spirometry in all adolescent athletes. The editorial also emphasizes a number of other controversial aspects of the diagnosis of EIB and variations in testing procedures. The International Olympic Committee has announced that β-agonists will not be permitted without a documented need to treat asthma or EIB and that clinical proof and laboratory evidence is needed to justify the treatment. This approach may someday extend to athletes in other venues. Clearly, more sensitive screening methods are needed.

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THE EARLY COURSE OF NEWLY DIAGNOSED ASTHMA


Purpose of the Study. The authors describe the intensity of therapy for patients with newly diagnosed asthma and how it changed during subsequent years in relation to age, sex, and initial level of therapy.

Study Population and Methods. We examined a cohort of 13,671 patients in Saskatchewan, Canada, who were initially between the ages of 5 and 44 years. Patients were followed prospectively, and the intensity of asthma therapy was measured during successive 12-month periods.

Results. Based on the intensity of asthma drug therapy during the first year after entry into the cohort, 6661 patients (48.7%) were initially prescribed therapy judged to be appropriate for mild asthma, and 977 (7.1%) were dispensed medications in a manner suggesting their asthma was severe; the remaining 6033 (44.1%) were classified as receiving treatment of intermediate intensity. Among patients initially classified as receiving treatment appropriate for mild disease, only about 3% were dispensed medications that suggested that their asthma had become severe during up to 5 years of follow-up. Intensity of therapy waned in a substantial proportion of patients who were initially classified as having severe asthma, especially if they were initially younger than 15 years of age. Thirty-four per 100 patients initially younger than 15 years old were receiving medications appropriate for mild asthma, and 23 per 100 such patients received no medication for asthma during a 12-month period when followed up to 5 years.

Conclusions. Patients with asthma who are initially treated with therapy appropriate for mild asthma are rarely treated later with therapy suggesting the advent of severe disease. Patients initially dispensed medications suggesting the presence of severe asthma often see the intensity of treatment wane over time.

REVIEWER’S COMMENTS. I can’t say I’ve ever looked back to see if therapies initiated at the time of asthma diagnosis were similar a few years down the line. On the other hand, as a specialist, it’s unusual for me to evaluate a patient soon after symptoms begin. Nonetheless, if persistent asthma is treated appropriately early, my impression is that most patients improve, and are able to decrease their medications over time.

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PATIENT FACTORS AND MEDICATION GUIDELINE ADHERENCE AMONG OLDER WOMEN WITH ASTHMA

EFFECTIVENESS OF SCREENING EXAMINATIONS TO DETECT UNRECOGNIZED EXERCISE-INDUCED BRONCHOCONSTRICTION
Scott H. Sicherer

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